

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (canceled).

Claim 14 (currently amended): A method for channel coding in a GSM mobile radio system, wherein the channel coding uses recursive systematic codes and is performed at a transmitting end for transmission via a radio interface between a base station and a subscriber station, the method comprising the steps of:

arranging voice information to be coded based on at least one of a sensitivity of the voice information to transmission errors and a priority associated with the voice information;

subdividing the voice information into at least first and second voice information;

performing a channel coding for the first voice information which, in a first coding step, uses error protection codes for a cyclic redundancy check and, in a second coding step, uses recursive systematic codes comprising a numerator polynomial and a denominator polynomial;
and

performing a channel coding for the second voice information which uses recursive systematic codes comprising a numerator polynomial and a denominator polynomial;

performing a channel decoding comprising successive nonrecursive individual steps at a receiving end; and

performing post-processing based on the denominator polynomial after channel decoding with the numerator polynomial.

Claim 15 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the steps of:

generating the error protection codes for the cyclic redundancy check using a generator polynomial

$$g(D)=D^6+D^5+D^3+D^2D^1+1.$$

Claim 16 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the step of:
generating the recursive systematic codes using a generating polynomial

$$g(D)=1+D+D^3+D^4/1+D^3+D^4 \text{ or}$$
$$g(D)=1+D+D^4+D^6/1+D^2+D^3+D^5+D^6.$$

Claim 17 (canceled).

Claim 18 (canceled).

Claim 19 (currently amended): A method for channel coding in a GSM mobile radio system as claimed in claim ~~14~~ 18, wherein the post-processing is performed by a programmer.

Claim 20 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the step of:
obtaining a priori knowledge from previous decoding at a receiving end and using the a priori knowledge in subsequent channel decoding.

Claim 21 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the step of:
switching off completely the channel decoding in a subscriber station and using, thereafter, transmitted systematic data bits which are not channel coded.

Claim 22 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the steps of:
determining a transmission quality during a channel estimation; and
switching the channel decoding, depending on the transmission quality, at least one of on and off.

Claim 23 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the step of:

using the recursive systematic codes in an adaptive mutirate coder wherein the coder is selected in accordance with transmission conditions.

Claim 24 (previously presented): A method for channel coding in a GSM mobile radio system as claimed in claim 14, the method further comprising the step of:

using at least one polynomial of a nonrecursive systematic code previously used in the GSM mobile radio system as one of the numerator and denominator polynomials of the recursive systematic codes.

Claims 25-32 (canceled).